



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/076,778

02/13/2002

Ajay Mohindra

YO998-210X

4104

7590 03/22/2007  
Anne Vachon Dougherty  
3173 Cedar Road  
Yorktown Heights, NY 10598

EXAMINER

NEURAUTER, GEORGE C

ART UNIT

PAPER NUMBER

2143

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

03/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/076,778

Applicant(s)

MOHINDRA ET AL.

Examiner

George C. Neurauter, Jr.

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2143

#### DETAILED ACTION

Claims 11-18 and 20-22 are currently presented and have been examined.

#### *Response to Arguments*

Applicant's arguments filed 19 February 2007 have been fully considered but they are not persuasive.

The Applicant continues to argue that Chess does not teach or suggest providing input values by a user during program execution after it has begun running but before the program requires the values. The Examiner respectfully does not agree in view of the teachings of Chess as known in the prior art. The Examiner has cited the reference "instantiation" to support the Chess' teachings.

First, Chess expressly discloses:

"He uses a form or a dialogue to express his need. The application translates this need into a task expressed in an Agent Communication Language...This task specification is used to create an instance of a Transaction Agent in the portable computer. The Transaction agent is a program..." (page 36 of Chess)

Therefore, Chess clearly discloses providing input values by a user. The Examiner notes for the record the use of the phrase "create an instance" by the "application". The reference

Art Unit: 2143

"instantiation" as cited by the Examiner defines this as "[p]roducing a more defined version of some object by replacing variable with values (or other variables)". Also it is noted that the reference goes on to teach that "In object-oriented programming, producing a particular object from its class template".

Within the claims as presented, the limitations of "providing input values by a user during program execution after it has begun running but before the program requires the values" and subsequently "storing" those values for previously stored variables, one of ordinary skill in the art would interpret the claims in the manner in which the Examiner has done because the "application" as disclosed in Chess expressly discloses creating an "instance" of a Transaction Agent or essentially a "more defined version" of the same program, leading to the conclusion that the program that previously was without the user's input is now the same running program it was before, just now it has the input values and such an instance of the program is created that now has the input values stored. As shown previously in Chess, the agent proceeds to obtain information based on the user's input, thereby also fulfilling the "but prior to the program requiring the values" or "before the program needs the input values" limitation. Therefore, the application that instantiates

Art Unit: 2143

the agent receives the values during its execution, which is inherent since the invention of Chess would not operate otherwise, but prior to the program with the input values requiring the values. The Examiner submits that Chess does disclose the limitations as recited in the claim in view of the broadest reasonable interpretation of the claim as would have been interpreted by those of ordinary skill in the art in view of their level of knowledge.

Further, the Examiner submits that the Applicant is asserting patentable subject matter that was disclosed in references previously disclosed by the Examiner. Particularly, the Examiner points to the Applicant's response on 9 November 2004 where on pages 7 and 8, the Applicant admits that the Peckover reference teaches a Preference Manager within a Personal Agent which "maintains data about the preferences of the user and which may additionally automatically update the preference data in response to user instructions. The Preference Manager 'uses preference data to order search results....".

Therefore, the Examiner finds the Applicant's arguments regarding the patentability of providing input values by a user during program execution after it has begun running but before the program requires the values and storing the input values to be unpersuasive in view of the Applicant's admissions during the

Art Unit: 2143

prosecution of the instant application of the teachings of Peckover. Therefore, the Examiner submits that these limitations cannot be the basis for patentability of the claimed invention.

The Examiner maintains the views previously presented regarding Chess.

In view of the rejections under Bull, the Examiner follows the same reasoning as shown above. The Applicant argues that "instantiating a persistent agent to monitor changes to a system is not the same as or suggestive of a user inputting values that the program will later require". However, Bull clearly discloses the user providing "criteria" to a program or "persistent complex software text search agent" and storing such criteria to "alert the user...the information that was requested is available" if and when information additions are made and is the information requested. Also, Bull discloses "client profiles" that are "entered by the consumer". Therefore, the Examiner submits that Bull does disclose the limitations of claim 11 in view of the level of knowledge regarding "agents" supported by the above.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed

Art Unit: 2143

invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the combined teachings of the references, particularly Chess and Bull, disclose the limitations of the claims. Further, both references are directed to mobile or persistent agents and their operations. It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose, the idea of combining them flows logically from their having been individually taught in the prior art. See MPEP 2144.06 and *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

#### ***Claim Interpretation***

The element "bag buffer" defined on page 8, lines 20-23 of the specification and recited in claims 11-17 and 19-22 will be given its broadest reasonable interpretation and will be interpreted by the Examiner as a buffer that holds predetermined variable/value pairs that is consistent with the disclosures of

Art Unit: 2143

the specification and the interpretation that those skilled in the art would reach. See MPEP § 2111.

The Applicant has not provided a clear definition for the terms "variable" or "value" recited in claims 11-22 within the specification. Therefore, the Examiner will interpret this element by its plain meaning as if the term was interpreted by one of ordinary skill in the art. See MPEP § 2111.01.

Also, the Applicant has failed to seasonably challenge the Examiner's assertions of well known subject matter in the previous Office action(s) pursuant to the requirements set forth under MPEP § 2144.03. A "seasonable challenge" is an explicit demand for evidence set forth by Applicant in the next response, including a statement why the noticed fact is not considered to be common knowledge or well-known in the art. A general allegation that the claims define a patentable invention without any reference to the examiner's assertion of official notice would be inadequate. Accordingly, the claim limitations the Examiner considered as "well known" in the first Office action, i.e. using a specific data structure such as an array, hash table, or tuple space in place of any other type of data structure, are now established as admitted prior art of record for the course of the prosecution. See *In re Chevenard*, 139



Art Unit: 2143

F.2d 71, 60 USPQ 239 (CCPA 1943) and MPEP § 2144.03, paragraph (C).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11-13 and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by "Iterant Agents for Mobile Computing" by Chess et al.

Regarding claim 11, Chess discloses a method for enabling a user to provide input values ("user's task") as variables to a running program (referred to throughout the reference as "iterant agent" or "Transaction Agent") after said program has begun running and before the program needs the input values, wherein user input values are substituted for program variables during program execution, comprising the steps of maintaining a

Art Unit: 2143

bag buffer of variable/value pairs for use in executing the program in the program (page 34, right column, specifically "The agent is initialized with the user's task..."; page 39, paragraph "Goals and Status Information"; see also Figure 2); receiving a communication, including input values, from the user during program execution (page 36, right column, specifically "He uses a form or a dialogue to state his need"); and temporarily storing said input values for said variables as variable/value pairs in said bag buffer (page 34, right column, specifically "The agent is initialized with the user's task..."; page 36, right column, specifically "This task specification is used to create an instance of a Transaction Agent...The Transaction Agent is also given the user's preferences for travel reservations (expressed as rules)...").

Regarding claim 12, Chess discloses the method of claim 11 wherein said program subsequently performs a retrieving step wherein said program searches through contents of the bag buffer to locate needed input values before requesting input from said user. (page 37, left column, specifically "The agent...process[es] each of [the] candidates against the user's travel preferences...")

Regarding claim 13, Chess discloses the method of claim 12, wherein the retrieving step comprises the steps of searching, in

Art Unit: 2143

the bag buffer, for input values associated with input variables requested by said program (page 37, left column, specifically "The agent...process[es] each of [the] candidates against the user's travel preferences...");

updating, if found, the input variables with the input values (page 37, right column, specifically "After ordering the candidates according to preference...");

disposing, in an input buffer, the input variables, if not found (page 37, right column, specifically "Whenever it finds a better candidate, it sends a message back to the server where it found the previous selection, releasing the hold it had requested. When it has examined a minimum number of candidates...it returns to the server the best candidate..."); and

optionally notifying the user via electronic means if no suitable values are found in the bag buffer (page 47, left column, specifically the text "Because the client may not be connected when the agent's response is ready...the agent can make use of the Agent Status Services to indicate its status and await an indication from its client. Or it can alert the user by using the services of the predetermined AMP to send a "page" to the client").

Art Unit: 2143

Regarding claim 18, Chess discloses an apparatus at a computer location for a mobile agent ("iterant agent" or "Transaction Agent"; Figure 2) executing a program at an agent execution shell at a computing location comprising:

an output buffer for storing program execution output values to be displayed to a user; (page 36, left column, the paragraph "An Information Dispersal/Retrieval Model, specifically "A client sends its agent...into the network to retrieve the latest version of a technical paper on "Agent Technologies"...In this case, the iterant agent serves as the courier...for data and program content")

an input buffer for storing values based on user input of values for variables required by said program, wherein user input values are substituted for program variables during program execution, said input buffer being accessed by said agent execution shell to communicate values for the input variables to the agent for present user by the agent during program execution (page 34, right column, specifically "The agent is initialized with the user's task..."; page 36, right column, specifically "He uses a form or a dialogue to state his need...This task specification is used to create an instance of a Transaction Agent...The Transaction Agent is also given the

Art Unit: 2143

user's preferences for travel reservations (expressed as rules)...");

a program state buffer for storing at least the present state of said program. (page 35, left column, specifically "When the agent has successfully completed its task at this server, it may collect its state..."); and

a bag buffer for storing variable/value pairs for later use by said agent in executing said program. (page 34, right column, specifically "The agent is initialized with the user's task..."; page 39, paragraph "Goals and Status Information")

Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 5,901,287 to Bull et al.

Regarding claim 11, Bull discloses a method for enabling a user to provide input values as variables to a running program after said program has begun running and before the program needs the input values, wherein user input values are substituted for program variables during program execution, comprising the steps of:

maintaining a bag buffer of variable/value pairs ("DataStore") for use in executing the program in the program; receiving a communication, including input values ("criteria" or "explicit or implicit query parameters"), from the user during program execution; and temporarily storing said input values for

Art Unit: 2143

said variables as variable/value pairs in said bag buffer.

(column 5, lines 46-55, specifically "The user can establish a persistent...agent to monitor future information additions to the System"; see also column 8, lines 32-36 and column 10, lines 64-67)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a),

Art Unit: 2143

the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chess et al in view of US Patent 5,901,287 to Bull et al.

Regarding claims 14-17, Chess discloses the method of Claim 13.

Chess does not expressly disclose wherein the electronic means is a pager, beeper, electronic mail, or smart telephone, wherein the notifying comprises assembling and transmitting a message to said user, however, Bull does disclose these limitations (column 5, lines 46-60, specifically lines 51-55; see also column 3, lines 26-29, column 10, lines 22-31, and column 11, lines 53-57)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings

Art Unit: 2143

of these references since Bull discloses that notifying by these various electronic means allows the user to be alerted to any future information addition to the system (column 5, lines 50-55). In view of these specific advantages and that the references are directed to allowing a user to provide input values to program before it requires the values, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor, which would lead one of ordinary skill to reasonably expect a successful combination of the teachings.

Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chess et al.

Regarding claims 20-22, Chess discloses the apparatus of Claim 18.

Chess does not expressly disclose wherein the bag buffer is an array data structure, hash table data structure, or a tuple space data structure.

The Applicant has failed to seasonably challenge the Examiner's assertions of well known subject matter in the previous Office action(s) pursuant to the requirements set forth under MPEP § 2144.03. A "seasonable challenge" is an explicit demand for evidence set forth by Applicant in the next response,



Art Unit: 2143

including a statement why the noticed fact is not considered to be common knowledge or well-known in the art. A general allegation that the claims define a patentable invention without any reference to the examiner's assertion of official notice would be inadequate. Accordingly, the claim limitations the Examiner considered as "well known" in the first Office action, i.e. using a specific data structure such as an array, hash table, or tuple space in place of any other type of data structure, are now established as admitted prior art of record for the course of the prosecution. See *In re Chevenard*, 139 F.2d 71, 60 USPQ 239 (CCPA 1943) and MPEP § 2144.03, paragraph (C).

#### **Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated

Art Unit: 2143

from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

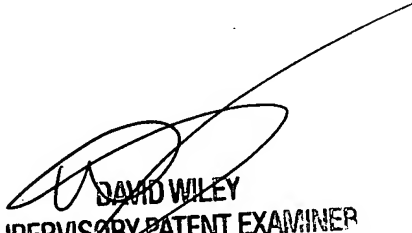
Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is 571-272-3918. The examiner can normally be reached on Monday-Friday 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2143

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/gcn/

  
DAVID WILEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2143